



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/594,525

09/28/2006

Yoshio Sasaki

8048-1194

4655

466 7590 03/19/2009
YOUNG & THOMPSON
209 Madison Street
Suite 500
ALEXANDRIA, VA 22314

EXAMINER

EDUN, MOHAMMAD N

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

03/19/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,525	Applicant(s) SASAKI ET AL.	
	Examiner MUHAMMAD N. EDUN	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21,22,25,26,34 and 35 is/are allowed.
- 6) ☒ Claim(s) 20,23,28-33 and 36-38 is/are rejected.
- 7) ☒ Claim(s) 24 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 36-38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 36-38 are drawn to a computer program product taken to be a “computer program” *per se*, therefore, fail(s) to fall within a statutory category of invention.

A claim directed to a computer program itself is non-statutory because it is not:

A process occurring as a result of executing the program, or

A machine programmed to operate in accordance with the program, or

A manufacture structurally and functionally interconnected with the program in a manner which enable the program to act as a computer component and realize its functionality, or

A composition of matter.

See MPEP § 2106.01. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are

Art Unit: 2627

not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20, 23 and 28-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Yokoi et al. (5,732,062).

Yokoi et al. discloses the invention as claimed. The reference shows the information recording apparatus which irradiates a laser light onto a recording medium and forms a recording mark corresponding to a recording signal, comprising: a light source (LD) which emits the laser light; and a signal generating unit (described but not specifically shown, see for example columns 12-13) which generates a recording pulse signal driving the light source based on the recording signal and including a mark period for forming the recording mark and a space period for forming no recording mark, wherein the signal generating unit makes a level of the recording pulse signal corresponds to a recording power ensuring reproduction compatibility in a mark period corresponding to a long mark (see for example Fig. 7, long mark 5T) and corresponds to a recording power having asymmetry within a predetermined range in a mark period corresponding to a short mark (see for example Fig. 17, short mark 3T), thereby to generate the recording pulse signal, as set forth in the claims.

The reference further teaches: modulation within a predetermined range (see for example 0.2mw-13mw, see Fig. 17), as set forth in claim 23; the short mark is for example the shortest mark (3T) and the long mark (5T) is other than the short mark, as set forth in claims 28 and 29; and the magnitudes and levels of the short and long marks (see Figs. 17, 19-27), as set forth in claims 30-32. See also the description of the apparatus and figures for further details relating to the limitations as set forth in claims.

Allowable Subject Matter

Claims 24 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 21, 22, 25, 26, 34 and 35 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record alone or in combination does not teach or suggest the information recording apparatus as recited in claim 20, having the further limitations as set forth in claims 24 and 27.

The prior art of record alone or in combination does not teach or suggest information recording apparatus and method having the combination of elements and steps with their recited function and process, along with wherein the signal generating unit makes a level of the recording pulse signal corresponds to a recording power having waveform distortion equal to or smaller than a predetermined value in a mark period corresponding to a long mark and corresponds to a recording power having asymmetry within a predetermined range in a mark period corresponding to a short

Art Unit: 2627

mark, thereby to generate the recording pulse signal, as set forth in claims 21, 22, 25, 26, 34 and 35.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MUHAMMAD N. EDUN whose telephone number is 571-272-7617. The examiner can normally be reached on FLEXTIME.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/MUHAMMAD N EDUN/
Primary Examiner, Art Unit 2627**